WELL DEVELOPMENTS

Summer - 2008

BWWC

1424 9th Avenue PO Box 201601 Helena MT 59620-1601 406-444-6643

Geothermal Systems

Over the past 10 years geothermal heating and air conditioning using processed well water has evolved into two workable systems: closed-loop and open-loop.

The closed-loop system connects two or more wells with special tubing that encases a liquid refrigerant that is pumped through the ground or groundwater and into heating or cooling units which extract the constant temperature air for use in a building. No water is extracted from or injected into the aquifer. The closed-loop system is not regulated by the BWWC.

Open-loop systems circulate water extracted from a well or well field through the heating or cooling systems, and then inject the processed water into another adjoining well or well field. BWWC requires that these wells be drilled by licensed persons according to the well construction rules.

BWWC has a responsibility to protect the aquifers that may be involved in the extraction or injection of water used in open-loop systems. BWWC or the DNRC Water Resources Regional Office may require that the driller provide soil and water samples for testing as well as additional well information to determine whether the open-loop system will adversely affect the aquifers.

BOARD MEMBERS

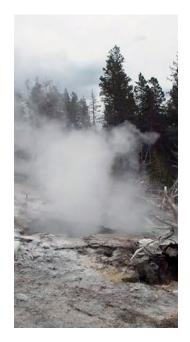
Bob Bergantino, MBMG Member Pat Byrne, Industry Member Kevin Haggerty, Industry Member Eric Regensburger, DEQ Member Laurence Siroky, DNRC Member

Rule 26.21.650, Casing Perforations, prohibits interflow between aquifers if a deleterious effect can be shown; however, the rules do not specifically address open-loop systems or the well fields. Never-the-less, BWWC may require that the wells be permanently abandoned if there is a documented threat to the aquifers involved. The Board also recognizes that a licensed water well contractor who properly drilled the wells cannot be responsible for the use of the well system by the well owner.

Water Rights & Well Logs

The DNRC is now requiring some additional information to be completed on the water rights form for wells. The Notice of Completion of Groundwater Development, form 602, for groundwater developments with a maximum use of 35 gallons per minute or less and not to exceed 10 acre-feet per year, is now requiring the name of the Water Well Contractor. The purpose is to more easily match up the water rights filings with the appropriate well log and the information contained on them.

Additionally, the DNRC is getting a list of names and addresses off of recently filed well logs from the Ground Water Information Center. Using this information, the Department is sending reminders and information to new well owners to encourage the well owner to file the appropriate water right information with the DNRC.



IN THIS ISSUE

- 1 Geothermal Systems
- 1 Water Rights & Well Logs
- 1 Continuing Education
- 2 Pending Water Legislation Information
- 3 DrillerWeb
- 4 New Licensees

Continuing Education OpportunitiesConventions and Conferences
Montana WWDADate
Feb. 4-5 2009Location
Helena, MTPhone
1-888-526-7867National GWADec 2-5, 2008Las Vegas, NV1-800-551-7379

 National GWA
 Dec 2-5, 2008
 Las Vegas, NV
 1-800-551-7379

 Wyoming WWA
 Jan 28-30, 2009
 Casper, WY
 1-307-788-1530

 Washington GWA
 Sept 25-27, 2008
 Spokane, WA
 1-360-757-1551

 California GWA
 Oct 30-Nov 1, 2008
 Sparks, NV
 1-707-578-4408

 California GWA
 Oct 30-Nov 1, 2008
 Sparks, NV
 1-707-578-4408

 Mountain States GW Expo
 Feb 12-14, 2009
 Laughlin, NV
 1-480-609-3999

Lezlie Kinne, Willow Cr. WUA Dam Operator, Water Commissioner, VP MADCS

The Water Interim Committee met on March 12 and 13 in Helena. The following were many issues that came under discussion:

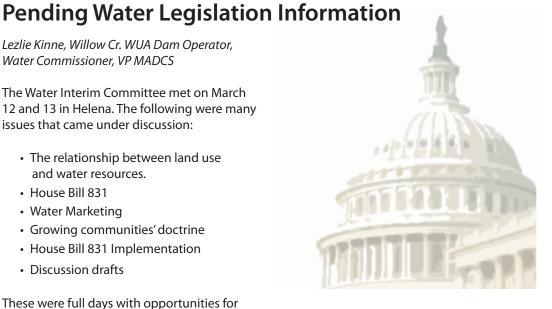
- The relationship between land use and water resources.
- House Bill 831
- Water Marketing
- Growing communities' doctrine
- House Bill 831 Implementation
- Discussion drafts

These were full days with opportunities for public comment sprinkled throughout. What I will address here is the drafts that will be coming out of the committee as House Bills. At this time they are numbered and they are for discussion only.

LC5001 – A bill for an Act entitled An Act providing that an applicant for an appropriation right in a basin closed to new appropriation is not required to submit a hydrogeologic assessment if the applicant submits a mitigation plan or an aquifer recharge plan that provides for the offset of at least 100 percent of the amount of groundwater withdrawn by the proposed appropriation, regardless of the amount of the net depletion of surface water or adverse affect. As it stands now it is what the DNRC refers to as the "bucket for bucket proposal". This bill has been turned over to the DNRC for refinement and will appear at the April Committee meeting with new language. If you have any questions or are concerned, watch the Montana Legislative web page, www.leg.mt.gov, for a new form of this draft.

LC5002 - Notice of Intent to Drill and **LC5006** – Final plat approval Conditional on a Water Right. These are problematic at best and have been given to a working group to review and come back in April with new language.

LC5003 - Water Rights Enforcement Division. After discussion and defending of the DNRC enforcement actions this paper was scraped and a new line of thought will come forth at the April Meeting. The general thought being that if enforcement works in some drainages there is no need to fix that which is not broken. This bears watching.



LC5005 – Water Reservations for MDOT compliance with CWA. This will go forward as a House Bill as the MDOT is in need of a less complex process to deal with wetland mitigation.

LC5007 – Ground Water Investigation Program. This will come as a House Bill for the funding of a hydrogeologic assessment for the State of Montana. There is a great need in the State of Montana for making wise rules that will govern our water.

LC5008 – Resolution of Issue Remarks by the Water Court. The water court was helpful in answering questions regarding the resolution of these remarks and the time frame that they would be resolved.

These issues are all very important to the future water use in the state of Montana. I encourage you to become involved with a letter or an appearance to the committee on any of the above issues as they pertain to you. This is the time when your involvement can make the greater impact and is very helpful during this process. The committee wants to hear from you. They hear from the others all the time. You can make a difference in the outcome of any of these issues.

Go to www.leg.mt.gov.org for internet access on the upcoming agenda and all legislative issues.











Ground-Water Information Center Montana Bureau of Mines and Geology Montana Tech of The University of Montana 1300 West Park Street - Main Hall 314 Butte Montana 59701-8997

http://mbmggwic.mtech.edu/



Drought Reports

<u>Download</u> an Adobe Acrobat file that discusses how aquifers respond to climatic conditions. The document also includes statistics about how wells in Montana's statewide monitoring network are responding to the current drought. **Updated to June 2006** (3.8 MB).



more reports

Statewide Monitoring Network



GWIC features current hydrographs for wells that are being measured regularly by MBMG and its cooperators. Click the picture to to the left to view data collected by the Statewide Monitoring Program. Data from other MBMG projects are available through the SWL Menu after you sign in.

<u>View a list</u> of statewide monitoring network wells. The listing is by number of wells per county.

County-wide Statistics

more reports

View statistical overviews of the well data in individual counties. Select the county name from the drop-down box to the right and click the **Go!** button.



Sign In Status: Signed Out

Enter your User Id and Proposed Data Use. Click **Sign In** to access GWIC's online services. If you do not have a User Id, click <u>create one here</u>.

User Id:

Data Use: Pick One

Sign In

Coalbed Methane GW Monitoring Network



MBMG operates the Montana Powder River Regional Coalbed methane ground-water monitoring network of springs and wells. Data for this program plus site specific research such as coalbed methane infiltration pond studies can be viewed online, or downloaded from GWIC. Click on the picture to access the MBMG coalbed methane project data.

A little about us

DrillerWeb

An Internet application from the Ground-Water Information Center - http://mbmggwic.mtech.edu

What is DrillerWeb?

DrillerWeb is the website created by the GWIC staff to allow licensed water well drillers in the State of Montana to file well logs online.

Where is DrillerWeb?

DrillerWeb is part of the main GWIC website located at: http://mbmggwic.mtech.edu

What can you do with DrillerWeb?

DrillerWeb allows drillers to:

- enter new well logs
- edit well logs in their account
- file abandonment reports
- file re-completion reports
- print well logs
- transfer well logs to GWIC

All normal well-filing tasks can be completed from your home or office computer.

What do you need to use DrillerWeb?

You will need the following equipment and/or software to use the DrillerWeb system:

- Personal Computer
- Internet connection (network, dial-up)
- Internet Browser (IE 5.5+, Netscape)
- Printer

Who maintains DrillerWeb?

The Ground-Water Information Center houses the DrillerWeb application as part of their web services. All software upgrades, data storage, and maintenance will be handled by GWIC.

All scheduled maintenance will be announced in advance so that you can plan your use appropriately.

When is DrillerWeb on?

The DrillerWeb application is part of the GWIC website and is available as long as the website is up. Normal service is 24 hours a day.

Note: Interruptions in internet service to the Montana Tech campus may prevent you from accessing DrillerWeb or GWIC.





Ground-Water Information Center Montana Bureau of Mines & Geology 1300 West Park Street Main Hall 314 Butte MT 59701-8997

(406) 496-4336 – phone (406) 496-4343 – fax GWIC@mtech.edu – e-mail

New Licensees

Well Contractors

Cameron Decker D & W Drilling Libby Wallace Boggs Wally Boggs Construction Browning Casey Olson OH Well Drilling & Pump Columbia Falls Thomas Guardino Absarokee Guardino Well Drilling Garry Kane Kane Well Drilling & Pump Supply Superior Scott Hittle **Universal Drilling** Libby

Water Well Drillers

Thomas Arnott no longer with Camp Well Drilling Missoula Tyson Bell Allwest Drilling, Inc. Polson Patrick Bronson Aqua Source, Inc, LLC Choteau AK Drilling Inc Butte Josh Crossman Wade Emerson Allwest Drilling Polson Marvin White Camp Well Drilling & Pump Supply Missoula

Monitoring Well Constructors

Lyle BallengerAxis Drilling IncBelgradeJaramie FalconSK GeotechnicalMissoulaKenneth PhillipsBoart Longyear CompanyMilton, WAKeith PeckO'Keefe DrillingButteChris TigartChris Boland Drilling CompanyGreat Falls

300 copies of this document were published at an estimated cost of xx per copy. The total cost of \$xx includes \$xx for printing and \$xx for distribution.

Persons with disabilities who need an alternative, accessible format of this document should contact:

DNRC, 1424 9th Avenue PO Box 201601 Helena MT 59620-1601

406-444-6643 Fax 406-444-5918





Board of Water Well Contractors

PO Box 201601 Helena MT 59620-1601

